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Carl J. Roof — 37,708
Name of Attorney — Registration No.

Carl J. Roof
Signature of Attorney

P&G Case 8557

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the application of	:	
Timothy William Dake, et al.	:	Confirmation No. 6421
Serial No. 09/853,391	:	Group Art Unit 1761
Filed May 11, 2001	:	Examiner H. Pratt

For COMPOSITIONS HAVING ENHANCED AQUEOUS SOLUBILITY AND METHODS OF THEIR PREPARATION

BRIEF ON APPEALS

Mail Stop Appeal Brief – Patents
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Enclosed, pursuant to 37 C.F.R. 1.192(a), is Appellant's brief on Appeal for the above application. The Brief is being forwarded in triplicate.

The fee for this Brief on Appeal is $330.00 37 CFR 1.17(c).

The Director is hereby authorized to charge the above fee, or any additional fees that may be required, or credit any overpayment to Deposit Account No. 16-2480 in the name of The Procter & Gamble Company. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

By Carl J. Roof
Carl J. Roof
Attorney or Agent for Applicant(s)
Registration No. 37,708
(513) 634-5209

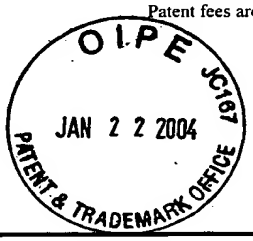
Date: January 20, 2004

Customer No. 27752

(BriefonAppealTrans.doc)
(Last Revised 10/10/2003)

FEE TRANSMITTAL for FY 2004

Patent fees are subject to annual revision.



TOTAL AMOUNT OF PAYMENT ($)330.00

Complete if Known	
Application Number	09/853,391
Confirmation Number	6421
Filing Date	May 11, 2001
First Named Inventor	Dake, et al.
Examiner Name	H. Pratt
Art Unit	
Attorney Docket No.	8557

METHOD OF PAYMENT

1. [X] The Director is hereby authorized to charge indicated fees submitted on this form, credit any over payments, and charge any additional fee(s) during the pendency of this application to:

Deposit Account Number: **16-2480**
Deposit Account Name: **The Procter & Gamble Company**

FEE CALCULATION

1. **BASIC FILING FEE – Large Entity**

Code	($)	Fee Description	Fee Paid
1001	770	Utility filing fee	[]
1002	340	Design filing fee	[]
1004	770	Reissue filing fee	[]
1005	160	Provisional filing fee	[]

SUBTOTAL (1) ($)[0]

2. **EXTRA CLAIM FEES FOR UTILITY AND REISSUE – Large Entity**

		Extra Claims	Fee from Below	Fee Paid
Total Claims	[] - 20** =	[] x	[]	=[]
Independent Claims	[] - 3** =	[] x	[]	=[]
Multiple Dependent			[]	=[]

** or number previously paid, if greater; For Reissues, see below

Code	($)	Fee Description
1202	18	Claims in excess of 20
1201	86	Independent claims in excess of 3
1203	290	Multiple dependent claim, if not paid
1204	86	**Reissue independent claims over original patent
1205	18	**Reissue claims in excess of 20 & over original patent

SUBTOTAL (2) ($)[0]

FEE CALCULATION (continued)

3. **ADDITIONAL FEES**

Code	($)	Fee Description	Fee Paid
1051	130	Surcharge-late filing fee or oath	[]
1052	50	Surcharge-late provisional filing fee or cover sheet	[]
1053	130	Non-English specification	[]
1812	2,520	For filing a request for *ex parte* reexamination	[]
1804	920*	Requesting publication of SIR prior to Examiner's action	[]
1805	1,840*	Requesting publication of SIR after Examiner's action	[]
1251	110	Extension for reply within 1st month	[]
1252	420	Extension for reply within 2nd month	[]
1253	950	Extension for reply within 3rd month	[]
1254	1,480	Extension for reply within 4th month	[]
1255	2,010	Extension for reply within 5th month	[]
1401	330	Notice of Appeal	[]
1402	330	Filing a brief in support of an appeal	[X]
1403	290	Request for oral hearing	[]
1451	1,510	Petition to institute a public use proceeding	[]
1452	110	Petition to revive - unavoidable	[]
1453	1,330	Petition to revive - unintentional	[]
1501	1,330	Utility issue fee (or reissue)	[]
1502	480	Design issue fee	[]
1460	130	Petitions to the Commissioner	[]
1807	50	Processing fee under 37 C.F.R. 1.17(q)	[]
1806	180	Submission of Information Disclosure Statement	[]
1809	770	Filing a submission after final rejection (37 CFR § 1.129(a))	[]
1810	770	For each additional invention to be examined (37 CFR §1.129(b)	[]
1801	770	Request for Continued Examination (RCE)	[]
1802	900	Request for expedited examination of a design application	[]
1454	1330	Acceptance of unintentionally delayed claim for priority under 35 U.S.C. 119, 120, 121, or 365 (a) or (c)	[]

Other fee (specify) _____ []
Other fee (specify) _____ []

* Reduced by Basic Filing Fee Paid **SUBTOTAL(3)** ($) |330|

SUBMITTED BY				Complete (if applicable)	
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Signature	Carl J. Roof			Date	01/20/2004

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Carl J. Roof — Name of Attorney
37,708 — Registration No.
Carl J. Roof — Signature of Attorney

P&G Case **8557**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the Application of	:	
Dake *et al.*	:	Confirmation No.: 6421
Serial No.: 09/853,391	:	Group Art Unit: 1761
Filed: May 11, 2001	:	Examiner: H. Pratt

For COMPOSITIONS HAVING ENHANCED AQUEOUS SOLUBILITY AND METHODS OF THEIR PREPARATION

APPEAL BRIEF

Mail Stop Appeal Brief – Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Appellants hereby appeal to the Board of Appeals the decision (Advisory Action) of the Examiner dated December 17, 2003, maintaining in certain respects the final rejection of Claims 1-85, 93-98 and 102 as set forth in the Office Action dated July 14, 2003. This Brief is being filed in triplicate.

The Notice of Appeal for this application was filed on November 14, 2003, and was received by the Office on November 17, 2003, making the Brief due without extension on January 17, 2004. Because that date falls on a Saturday and the subsequent Monday (January 19th) is a Federal Holiday, this Brief is due without extension fees on or before January 20, 2004.

REAL PARTY IN INTEREST

The real party in interest is The Procter & Gamble Company, assignee of Appellants' entire right, title and interest in the invention at issue. A copy of this Assignment was recorded at the United States Patent and Trademark Office on August 8, 2002, at reel # 012970, frame # 0460.

RELATED APPEALS AND INTERFERENCES

Appellants, Appellants' undersigned legal representative, and Assignee are not aware of any pending appeals or interferences that would be directly affected by or have a bearing on the Board's decision in the subject Appeal.

STATUS OF CLAIMS

Claims 1-85, 93-98 and 102 are the subject of this appeal. No other claims are pending or allowed.

The present application was originally filed with Claims 1-98. In a preliminary amendment dated August 30, 2002, Claims 99-101 were added. In a response dated May 5, 2003, Appellants canceled Claims 86-92 and 99-101 (which were drawn to non-elected subject matter as a result of a restriction requirement) and added Claim 102.

Claims 1-85, 93-98 and 102 were finally rejected in an Office Action dated July 14, 2003 under 35 U.S.C. §103(a) as being obvious in view of various references. Claim 102 was also rejected as being indefinite under 35 U.S.C. §112(2) and as being anticipated under 35 U.S.C. §102(b).

In the Advisory Action dated December 17, 2003, the Examiner entered Appellants' after-final amendment to Claim 102 and withdrew the Section 102(b) rejection. Although the Section 103(a) rejections were maintained, it is not clear whether the Section 112(2) rejection of Claim 102 was withdrawn. Based on the Examiner's indication in the Advisory Action that Appellants' last response did not place the application in condition for allowance because "of the state of the art," Appellants assume the Section 112(2) rejection has also been withdrawn.

Based on the foregoing, the status of the claims is as follows:

Claims Allowed: None
Claims Objected To: None
Claims Rejected: 1-85, 93-98 and 102

The claims on Appeal are set forth in Appendix A.

STATUS OF AMENDMENTS

Subsequent to the Examiner's July 14, 2003, Office Action (hereafter "Final Action") finally rejecting Claims 1-85, 93-98, and 102, Appellants filed an after-final response that included a proposed amendment to Claim 102. In the Advisory Action dated December 17, 2003, the Examiner entered the amendment to Claim 102.

SUMMARY OF THE INVENTION

The invention claimed in the present application is directed to essentially dry compositions that contain a high intensity sweetener (e.g., aspartame) and exhibit good solubility despite the presence of relatively insoluble, poorly wetting, or hydrophobic ingredients, [p. 2, lines 3-5] and to beverages comprising the compositions [p. 16, lines 21-26]. In particular, the compositions of the present invention have enhanced dispersibility when added to a liquid (*e.g.*, water) and, therefore, enhanced solubility by virtue of the defined particle size of the sweetener therein. Appellants discovered that surprisingly, by combining ingredients to arrive at compositions defined by the pending claims, the use of high intensity sweeteners having a relatively larger particle size actually contributes positively to solubility of the overall composition. [p. 2, lines 5-9] As is discussed below, the art does not teach the compositions within the pending claims.

From a compositional standpoint, the invention covered by Claims 1-85 relates generally to essentially dry compositions that comprise (i) a high intensity sweetener (about 0.001% to 25% by weight) where at least about 50% of the sweetener is in the form of discrete particles having a particle size greater than 106 microns and (ii) a bulking agent (about 50 to about 96%). [p. 3, lines 4-11; p. 10, lines 8-9] Claim 102 is directed to essentially dry compositions that comprise (i) a high intensity sweetener (about 0.001% to 25% by weight) consisting essentially of aspartame, where at least about 50% of the aspartame is in the form of discrete particles having a particle size greater than 106 microns and (ii) a bulking agent (not more than about 96%).

ISSUE[1]

Are the compositions of Claims 1-85 and 102 and the beverages of Claims 93-98 patentable under 35 U.S.C. § 103(a) in view of the references cited by the Examiner?

GROUPING OF CLAIMS

Claims 1-85, 93-98, and 102 are within the same patentable grouping and, therefore, stand or fall together.

ARGUMENTS

(A) The Examiner's Positions:

(1) Claims 1, 2, 14-29, 45-85 and 102

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[1] As indicated in the Status of Claims section, Appellants assume that the Section 112(2) rejection of Claim 102 has been withdrawn. If this is improper, Appellants request that the Examiner so indicate in the Answer such that Appellants can properly brief the Board on this issue.

Claims 1, 2, 14-29, 45-85 and 102 are rejected under 35 U.S.C. 103(a) over U.S. Patent No. 6,399,132 to Ishida et al. ("Ishida") or U.S. Patent No. 5,968,580 to Chuang et al. ("Chuang") in view of the Sweet'n Low product and U.S. Patent No. 5,473,097 to Kishimoto et al. ("Kishimoto"). With respect to this aspect of the rejection, the Examiner first states that "[t]he independent claims are rejected for the reasons of record cited in the last office action and for these further reasons." [Final Action, at p. 3.] The Examiner then refers to Claim 1's element requiring from about 50 to about 96%, by weight, of a bulking agent. The Examiner indicates that this is in the range disclosed by the Sweet'n Low product. She also refers to Kishimoto for the teaching of aspartame particle sizes in the 100 to 500 micron range. She then concludes that "it would have been obvious to use the claimed amount and particle size in the process of Ishida et al. or Chuang et al. because these references disclose the higher range of more than 106 microns and Kishimoto et al. discloses usefulness of the lower range of 150."

With respect to Claim 102, the Examiner states that

> [t]he amount of bulking agent in SWEET'N LOW as above is less than 95%. The above reference [sic] disclose compositions containing the claimed particle size of less than 500 microns which reads on 106 microns in Ishida et al. as above and particles of 150 microns in Chuang et al. as above. It is not known what applicants have excluded by the use of the phrase 'consisting essentially of aspartame'. In any event a product made by Safeway which is aspartame SWEETENER contains only aspartame and maltodextrin. Also, Kishimoto et al. disclose that it is known to make aspartame particles by granulation to be from 100 to 500 microns and within the preferable range of 150 to 300 microns. Therefore it would have been obvious to make a product containing only aspartame and other ingredients which do not affect the composition and to use the claimed particle size.

See Final Action, p. 4.

(2) Claims 3-13:

Although not referring to Claims 3-13 specifically, the Examiner states that "[t]he further claims except claim 102 and claims 30-44 and 93-98 have been rejected as in the previous office action."

(3) Claims 30-44 and 93-98

Claims 30-44 and 93-98 are rejected under 35 U.S.C. 103(a) over Ishida or Chuang in view of the Sweet'n Low product and Kishimoto and U.S. Application Publication No. 2001/0016208A1 by Valentine et al. ("Valentine") and U.S. Patent No. 6,056,949 ("Menzi") and U.S. Patent No. 6,455,511 ("Kampinga").

(B) Appellants' Positions:

Before addressing the three (3) sets of rejections set forth by the Examiner, Appellants first wish to note that other than Claim 102, all claims directed to essentially dry compositions are subsumed by Claim 1. That is, even independent Claims 14, 45, 57 and 71, are subsumed by Claim 1, as they simply provide narrower ranges for certain of the elements set forth in Claim 1. Because Appellants are of the view that Claim 1 is patentable over the cited art, most of the discussion below focuses on Claim 1. Similarly, assuming Claim 1 is patentable, beverage claims 93-98 are also patentable. As Claim 102 is broader in some respects to Claim 1, it is discussed separate from Claims 1, 2, 14-29, and 45-85.

(1) Claims 1, 2, 14-29, 45-85 and 102

Before addressing the 'further reasons' statement by the Examiner, Appellants respectfully submit that a simple statement maintaining the prior rejections, without a discussion of how the references teach the limitations of the claims, particularly the bulking agent limitation added to the claims in the May 5, 2003 response, is not sufficient to permit a meaningful response by Appellants. MPEP § 706.02(j) provides that to maintain a proper Section 103 rejection

> the examiner should set forth in the Office action (A) the relevant teachings of the prior art, preferably with reference to the relevant column or page number(s) and line number(s) where appropriate, (B) the difference or differences in the claim over the applied reference(s), (C) the proposed modification of the applied reference(s) necessary to arrive at the claimed subject matter, and (D) an explanation why one of ordinary skill in the art at the time of the invention was made would have been motivated to make the proposed modifications.

Appellants respectfully submit that the Examiner did not properly set forth a rejection, insofar as she simply incorporated the rejections set forth in the Office Action dated December 5, 2002 (hereafter "First Action"). Other than Claim 102, the claims presented in the response to the First Action were amended to add the limitation around the amount of the bulking agent. As the reasons for rejection in the First Action said nothing about the level of bulking agent described by the references, this aspect of the Examiner's rejection in the Final Action improperly omits, at a minimum, the requisite specificity required by subsections (B) and (C) of MPEP §706.02(j). While Appellants will articulate below why the rejection is improper substantively, this improperly requires Appellants to make assumptions or interpretations of the art that are the responsibility of the Examiner to set forth in the first instance. (And since Claim 1 subsumes the inventions claimed by Claims 2, 14-29, 45-85 and is rejected over the same art cited in the First Action, it is believed that successfully traversing the rejection set forth in the Final Action will obviate the art rejections set forth in the First Action.)

As a standard for assessing obviousness, MPEP §706.02(j) lists three requirements for establishing a *prima facie* case under 35 U.S.C. §103. First, there must be some suggestion or

motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference(s) to arrive at the claimed invention. Second, there must be a reasonable expectation of success. Finally, the prior art reference(s) must teach or suggest all of the claim limitations.

Before addressing the elements for establishing a *prima facie* case, Appellants respectfully submit that it is not clear from the rejection how the various references are being combined in rendering the claims obvious. Are the teachings of all four (4) references being combined, or are Ishida and Chuang each being modified by the other two references to result in two separate obviousness rejections? Appellants requested clarity on this is issue, but it was not addressed in the Advisory Action. (Nonetheless, Appellants proceed under the assumption that the mentioned claims are rejected over Ishida in view of Sweet'n Low and Kishimoto, and separately over Chuang in view of Sweet'n Low and Kishimoto.)

In the Final Action, the Examiner refers to Claim 1's element requiring from about 50 to about 96%, by weight, of a bulking agent. The Examiner indicates that this is in the range disclosed by the Sweet'n Low product. She also refers to Kishimoto for the teaching of aspartame particle sizes in the 100 to 500 micron range. She then concludes that "it would have been obvious to use the claimed amount and particle size in the process of Ishida et al. or Chuang et al. because these references disclose the higher range of more than 106 microns and Kishimoto et al. discloses usefulness of the lower range of 150."

Appellants submit that the rejection of Claims 1, 2, 14-29, and 45-85 fails to meet at least the first and third requirements for establishing a *prima facie* case of obviousness pursuant to case law and the clear letter of the MPEP. First, the Examiner has shown no motivation in the cited art to combine, in any manner, the references' teachings in the first instance. Ishida's primary teaching is that the inclusion of Ace-K (a sweetener) with aspartame, in specifically defined ratios, enhances the solubility of the aspartame. Chuang is directed to tea-solids containing beverages that have reduced sediment qualities. The primary teaching is that bulk aspartame and aspartame-coated acid, when combined with tea solids, provides a reduced sediment product on reconstitution. The Sweet'n Low product is a saccharin-containing sweetener system that is not typically ingested itself, but instead is used to sweeten food or beverage products. And Kishimoto is directed to granules of aspartame that include crystals in the IB form (IB crystals) where those crystals have a particular grain size range.

Clearly, the subject matter described in the cited prior art are very different from one another. One skilled in the art is provided no motivation to look to the Sweet'n Low product or the Kishimoto reference to modify the teachings of Ishida or Chuang. Specifically, there is nothing in the disclosure by Ishida that suggests modifying the aspartame/Ace-K combination described therein with an end-use sweetener composition such as Sweet'n Low or with

Kishimoto's teachings around a particular crystal form for aspartame. Similarly, there is no motivation to combine the tea-containing beverage of Chuang with either of these prior art references. Appellants respectfully submit that no such motivation exists in the prior art generally. Because the Examiner has not satisfied the first prong of MPEP § 706(j), Appellants submit that the Section 103 rejection is improper.

Furthermore, a complete consideration of each reference's teachings will demonstrate that even if combined, the references do not teach Appellants' claimed compositions as required by the third prong of MPEP § 702(j). Specifically, the Examiner has provided no basis to establish that all the claim elements required by the pending claims are taught by the prior art.

Ishida teaches the importance of the Ace-K / aspartame relationship that results in enhanced solubility of the aspartame component. In discussing the importance of combining aspartame and Ace-K, Ishida teaches that the particle size of the aspartame will impact dissolution properties, regardless of the Ace-K/aspartame ratio. (See Col. 3, lines 14-18.) In this regard, Ishida states that "too large particle size of the granules [of aspartame] may result in reduction of the interface area where the particles and the water are in contact, which may, in turn, take a prolonged time period for dissolution." (*See* Col. 3, lines 24-27.) Interestingly, in spite of the admitted importance of aspartame particle size, Ishida does not provide a range of acceptable particle sizes for this component (in contrast to the specific ranges taught for the Ace-K material). The only discussion of aspartame particle size is in the "Best Mode" section commencing at Col. 4. In Experiment 1, a dissolution comparison is made between aspartame alone and aspartame combined with Ace-K. The aspartame used has an average particle size of 15μm and a maximum particle size of 100 μm; the data shows enhanced aspartame dissolution in the presence of Ace-K. Experiment 2 then considers whether benefits are seen at larger aspartame particle sizes. The corresponding Table 2 data indicate there are benefits relative to aspartame alone, but one also sees that use of smaller aspartame particles (those tested in Experiment 1) provides enhanced dissolution times compared to larger particle sizes at all the aspartame:Ace-K ratios tested. From this data, one would reasonably conclude that smaller aspartame particle size is preferred over larger particle size. One could also reasonably conclude that if a bulking agent were included with the Ace-K and aspartame, the importance of small particle size aspartame would become even more important. There is certainly no indication that the use of aspartame having a particle size greater than 106 microns would provide beneficial dispersibility/solubility properties. In sum, as to the particle size aspect of Appellants' claims, the MPEP and case precedent clearly require that aspects of the prior art that teach away must be considered when assessing claims under Section 103.

Ishida also discloses the optional use of a diluent or excipient, such as sugar alcohol, oligosaccharide or dietary fiber. However, no amounts for these materials are taught. Rather, at

Col. 4, Ishida merely says that the diluent may be included "as long as the improved solubility of APM according to the present invention is not affected adversely." Notably, in doing the data comparison to demonstrate the enhanced dispersibility of Ace-K plus aspartame versus aspartame alone, no excipient is used.

Independent Claims 1, 14, 30, 45, 57 and 71 require the inclusion of from about 50% to about 96%, by weight of the composition, of a bulking agent. While Ishida discusses the possibility of including certain diluents within Appellants' description of a bulking agent, as noted there is no teaching of how much can be included while still achieving the benefit sought by Ishida. All Ishida says is that materials other than aspartame and Ace-K cannot be included at such a level as to impair the effect the Ace-K has on preventing agglomeration of the aspartame particles. While no particular diluent levels are taught by Ishida, Appellants submit that the reference clearly does not teach or suggest a composition comprising at least 50%, by weight, bulking agent. Accordingly, Appellants submit that Ishida does not teach or suggest the dry compositions encompassed by Claims 1-85 and 93-98.

With respect to the bulking agent aspect of the claims, the Examiner acknowledges that Ishida does not teach the invention and apparently relies on the Sweet'n Low product to teach Appellants' bulking agent limitation (about 50 to about 96%) and Kishimoto to teach the high intensity sweetener particle size (greater than 106 μm). The Examiner has shown no reason to conclude that the skilled artisan would have taken this teaching from the Sweet'n Low product and combined it with the teaching of Ishida. And what's more, even after combining those teachings to get to the bulking agent limitation, one still does not arrive at the claimed high intensity sweetener particle size. For this, the Examiner relies on Kishimoto. Without delving into the shortcomings of Kishimoto in terms of its alleged disclosure of an aspartame particle size greater than 106 microns (the reference actually talks about the size of certain aspartame crystals as part of an aspartame granule composition), Appellants submit that there is simply no motivation to combine those specific aspects of Kishimoto with <u>both</u> Ishida and Sweet'n Low. Indeed, in piecing together the rejection based on Ishida, Sweet'n Low and Kishimoto, the Examiner is clearly picking and choosing from the various references' teachings to attempt to arrive at Appellants' claimed compositions. However, the picking and choosing is done without any guidance from the teachings of the cited art. So, even if one were motivated to combine the references' teachings in the first instance, one does not arrive at a composition having high intensity sweetener where at least about 50% of the particles have a particle size greater 106 microns and having a bulking agent at a level of from about 50 to about 96%. As the combination of references does not suggest all the claim limitations, the Examiner's rejection of Claims 1, 2, 14-29, and 45-85 over Ishida in view of Sweet'n Low and Kishimoto is improper and Appellants request that the Board reverse this aspect of the Examiner's rejection.

Chuang is directed to tea-containing beverage mixes comprising tea solids, bulk aspartame and aspartame-coated acid. In discussing the contribution of the two aspartame-related elements, Chuang states that it is believed that the bulk aspartame prevents grinding of tea solids into fines, which cause wetting problems. Importantly, with respect to the bulk aspartame aspect, Chuang states that at least 80% of the aspartame should pass through a No. 100 sieve - i.e., the particles are smaller than 150 microns. Chuang does not disclose a particular preferred size other than the qualitative "less than 150 microns." As for the aspartame coated acids, Chuang indicates that this provides the benefit of slowing dissolution of the acid, which enables the tea solids to dissolve before the pH of the solution is fully lowered. Chuang states that the aspartame-coated acids should be of a particle size greater than 150 micron and less than 420 micron. Clearly, Chuang does not teach Appellants' claim limitation of at least 50% of the high intensity sweetener having a particle size greater than about 106 microns.

While describing the components and their preferred levels in some detail, Chuang mentions, at Col. 3, that additional functional agents - flavor enhancers, colors, vitamins, minerals, and flow agents - may also be included. There is no teaching or suggestion of including the bulking agents required by Appellants' claims. Further, no levels of the optional functional agents are provided. The only mention of the amount of these functional ingredients is in Examples 1 and 2, which include 6.1% and 8.4%, respectively. Thus, to the extent Chuang discusses bulking agents in passing, the levels are much lower than the ranges in Appellants' Claims 1, 2, 14-29 and 45-85.

The Examiner properly concludes that Chuang by itself does not teach or suggest compositions containing the bulking agent required by Appellants' Claims 1, 2, 14-29 and 45-85. Indeed, to the extent Chuang teaches any specificity as to the level of bulking agent to include, the suggestion is to use levels far below Appellants' claimed range of from about 50 to about 96%. As with the shortcoming of Ishida, the Examiner relies on the Sweet'n Low product to teach the bulking agent and Kishimoto to teach the high intensity sweetener particle size. But for the reasons discussed with respect to Ishida, this picking and choosing from the cited references both ignores some of the references' teachings and uses hindsight based on Appellants' specification to arrive at the claimed compositions. Appellants respectfully submit that the rejection of Claims 1, 2, 14-29, and 45-85 over Chuang in view of Sweet'n Low and Kishimoto is improper. Appellants therefore request that the Board reverse this aspect of the rejection.

Turning to Claim 102, this claim presently covers essentially dry compositions comprising a high intensity sweetener consisting essentially of aspartame, wherein at least about 50% of the aspartame has a particle size greater than about 106 microns; and less than about 96% bulking agent. Before discussing the teachings of the references, Appellants submit that the Examiner has provided no basis for combining the cited art's teachings in the first instance.

Rather, hindsight is used to find art that very generally describes the various claimed parameters, and thereafter that art is combined in such a manner as to allegedly arrive at the invention covered by Claim 102. As discussed above, this hindsight reconstruction is improper and the rejection fails the first prong MPEP §706.02(j).

Substantively, Appellants believe the Examiner's position is that Ishida and Chuang teach aspartame particle sizes in Appellants' claimed range of greater than about 106 microns and that Sweet'n Low and Kishimoto teach the bulking agent aspect. Again, as discussed above, Appellants submit that a fair reading of Ishida and Chuang does not suggest use of aspartame where at least 50% of the aspartame has a particle size greater than about 106 microns. And moreover, both of these primary references describe the incorporation of a second high intensity sweetener – Ace K in Ishida and aspartame-coated acid in Chuang. Neither of these references remotely suggests using aspartame as the only high intensity sweetener. The deficiency is not cured by turning to Sweet'n Low or Kishimoto.

The Examiner then makes a new rejection based on a Safeway product that is asserted to contain only aspartame and maltodextrin (bulking agent). Irrespective of the appropriateness of this rejection, the Examiner makes no assertion as to the particle size of the aspartame utilized. While appearing to realize that Appellants' particle size requirement is not taught, the Examiner asserts that Kishimoto teaches that aspect of the claim. But again, Kishimoto is concerned with aspartame particle size where a particular crystal form is employed – specifically the IB crystal form. Kishimoto notes that only when a high percentage (90 wt % or more) of this IB crystal form is used does the importance of particle size become important. And the discussion in Kishimoto focuses almost exclusively on the use of the IB crystalline form of aspartame as a sweetener sold in individual packets. There is no discussion of inclusion of a bulking agent, nor is there any suggestion that the teachings around the preferred particle size range are relevant when aspartame is used in a composition similar to that within Claim 102.

Most importantly, as mentioned above, upon combining Kishimoto with Ishida or Chuang, one would more readily arrive at a composition that includes aspartame and another high intensity sweetener. There is no motivation in Kishimoto to eliminate the second sweetener material in Ishida or Chuang to arrive at the compositions of Claim 102.

For the foregoing reasons, Appellants request that the Board reverse the Examiner's Section 103(a) rejection of Claim 102.

(2) Claims 3-13:

Claims 3-13 are all dependent, either directly or indirectly, on Claim 1 or Claim 2. Appellants' argument concerning the lack of specificity of the Examiner's rejection, particularly in view of Appellants' amendment concerning the bulking agent aspect of the claims, are equally

applicable here. The Examiner simply has not satisfied the requirements of MPEP § 706.02(j) in rejecting Appellants' amended claims.

Substantively, because these claims are dependent on Claim 1, the Board's reversal of the Section 103(a) rejections of Claim 1 would dictate reversal of the rejection of Claims 3-13. Such reversal is requested by Appellants.

(3) Claims 30-44 and 93-98

With respect to Claims 30-44, Appellants submit that these claims are narrower than Claim 1, insofar as they all require that a relatively higher level of the high intensity sweetener be of a particle size greater than 106 μm. As such, Appellants submit that these claims are patentable over the cited art for the reasons discussed above.

As for Claims 93-98, they are directed to beverages comprising the composition of the various dependent claims discussed herein. Because the compositions themselves are patentable over the prior art, beverage Claims 93-98 are also patentable.

Appellants request reversal of the Section 103(a) rejections Claims 30-44 and 93-98.

CONCLUSION

It is respectfully submitted that the Examiner's rejections of Claims 1-85, 93-98 and 102 under 35 U.S.C. § 103(a) are improper. Reversal of these rejections by the Board is therefore respectfully requested.

Respectfully submitted,

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January 20, 2004
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APPENDIX A

Claims on Appeal

1. An essentially dry composition comprising:
   a) from about 0.001% to about 25% of a high intensity sweetener, by weight of the composition, wherein at least about 50% of the total high intensity sweetener, by weight, comprises discrete high intensity sweetener particles having a particle size of greater than about 106 microns; and
   b) from about 50 to about 96% of a bulking agent;

wherein the composition is suitable for use as a food or beverage.

2. A composition according to Claim 1 wherein at least about 75% of the total high intensity sweetener, by weight, comprises discrete high intensity sweetener particles having a particle size of greater than about 106 microns, and wherein at least one high intensity sweetener is selected from the group consisting of lo han guo, thaumatin, stevioside, acesulfame K, dipeptide sweeteners, sucralose, saccharin, and mixtures thereof.

3. A composition according to Claim 2 further comprising at least one nutrient selected from the group consisting of vitamin A, vitamin B, biotin, vitamin C, vitamin D, vitamin E, vitamin K, calcium, phosphorous, magnesium, potassium, iron, iodine, selenium, chromium, copper, fluorine, zinc, and mixtures thereof.

4. A composition according to Claim 3 further comprising a flavor agent.

5. A composition according to Claim 4 comprising from about 50% to about 93% of the total bulking agent, by weight of the composition, wherein the bulking agent comprises sucrose.

6. A composition according to Claim 5 wherein at least one flavor agent is selected from the group consisting of spray-dried flavor agents, agglomerated flavor agents, spray-dried agglomerated flavor agents, granulated flavor agents, extruded flavor agents, encapsulated flavor agents, and mixtures thereof.

7. A composition according to Claim 6 comprising from about 0.01% to about 10% of the total high intensity sweetener, by weight of the composition, wherein at least one high intensity sweetener is selected from the group consisting of acesulfame K, aspartame, and sucralose.

8. A composition according to Claim 7 wherein greater than about 50% of the total flavor agent, by weight, has a particle size greater than about 106 microns.

9. A composition according to Claim 8 comprising:

a) from about 0.1% to about 3% of the aspartame, by weight of the composition, and wherein greater than about 75% of the aspartame, by weight, comprises discrete aspartame particles having a particle size of greater than about 106 microns; and

b) from about 50% to about 93% of the total bulking agent, by weight of the composition, wherein the bulking agent comprises sucrose.

10. A composition according to Claim 9 wherein less than about 10% of the total high intensity sweetener, by weight, comprises particles having a particle size of less than about 45 microns.

11. A composition according to Claim 10 comprising at least three nutrients selected from the group consisting of vitamin A, riboflavin, niacinamide, vitamin B_6, folate, vitamin B_{12}, vitamin C, vitamin E, calcium, phosphorous, magnesium, potassium, iron, iodine, zinc, and mixtures thereof.

12. A composition according to Claim 11 having an Average Solubility Grade of about 6 or greater.

13. A composition according to Claim 1 having an Average Solubility Grade of about 5 or greater.

14. An essentially dry composition comprising:

a) from about 0.001% to about 25% of a high intensity sweetener, by weight of the composition, wherein at least about 82% of the total high intensity sweetener, by weight, comprises particles having a particle size of greater than about 106 microns; and

b) from about 50 to about 96% of a bulking agent, by weight of the composition;

wherein the composition is suitable for use as a food or beverage.

15. A composition according to Claim 14 wherein at least one high intensity sweetener is selected from the group consisting of lo han guo, thaumatin, stevioside, acesulfame K, dipeptide sweeteners, sucralose, saccharin, and mixtures thereof.

16. A composition according to Claim 15 further comprising at least one nutrient selected from the group consisting of vitamin A, vitamin B, biotin, vitamin C, vitamin D, vitamin E, vitamin K, calcium, phosphorous, magnesium, potassium, iron, iodine, selenium, chromium, copper, fluorine, zinc, and mixtures thereof.

17. A composition according to Claim 16 further comprising a flavor agent.

18. A composition according to Claim 17 comprising from about 50% to about 93% of the total bulking agent, by weight of the composition, wherein the bulking agent comprises sucrose.

19. A composition according to Claim 18 wherein at least one flavor agent is selected from the group consisting of spray-dried flavor agents, agglomerated flavor agents, spray-dried agglomerated flavor agents, granulated flavor agents, extruded flavor agents, encapsulated flavor agents, and mixtures thereof.

20. A composition according to Claim 19 comprising from about 0.01% to about 10% of the total high intensity sweetener, by weight of the composition, wherein at least one high intensity sweetener is selected from the group consisting of acesulfame K, aspartame, sucralose, and mixtures thereof.

21. A composition according to Claim 20 wherein at least about 87% of the total high intensity sweetener, by weight, comprises particles having a particle size greater than about 106 microns.

22. A composition according to Claim 21 wherein less than about 10% of the total high intensity sweetener, by weight, comprises particles having a particle size of less than about 45 microns.

23. A composition according to Claim 22 comprising from about 0.1% to about 3% aspartame, by weight of the composition.

24. A composition according to Claim 23 wherein greater than about 50% of the total flavor agent, by weight, has a particle size greater than about 106 microns.

25. A composition according to Claim 24 wherein less than about 5% of the aspartame, by weight, comprises particles having a particle size less than about 45 microns.

26. A composition according to Claim 25 wherein at least about 92% of the total high intensity sweetener, by weight, comprises particles having a particle size greater than about 106 microns.

27. A composition according to Claim 26 comprising at least three nutrients selected from the group consisting of vitamin A, riboflavin, niacinamide, vitamin B_6, folate, vitamin B_{12}, vitamin C, vitamin E, calcium, phosphorous, magnesium, potassium, iron, iodine, zinc, and mixtures thereof.

28. A composition according to Claim 27 having an Average Solubility Grade of about 6 or greater.

29. A composition according to Claim 14 having an Average Solubility Grade of about 5 or greater.

30. An essentially dry composition comprising:

a) from about 0.001% to about 25% of a high intensity sweetener, by weight of the composition, wherein at least about 82% of the total high intensity sweetener, by weight, comprises particles having a particle size of greater than about 106 microns; and

b) from about 50 to about 96% of a bulking agent, by weight of the composition;

wherein the composition is suitable for use as a food or beverage.

31. A composition according to Claim 30 wherein the high intensity sweetener comprises from about 0.01% to about 10% aspartame, by weight of the composition, wherein at least about 50% of the aspartame, by weight, has a particle size greater than about 106 microns.

32. A composition according to Claim 31 wherein at least about 75% of the aspartame, by weight, has a particle size greater than about 106 microns.

33. A composition according to Claim 32 comprising from about 18 milligrams to about 150 milligrams of iron, per 100 grams of the composition, and further comprising at least one further nutrient selected from the group consisting of calcium, phosphorous, potassium, vitamin A, vitamin B, biotin, vitamin C, vitamin D, vitamin E, vitamin K, and mixtures thereof.

34. A composition according to Claim 33 further comprising at least one flavor agent selected from the group consisting of spray-dried flavor agents, agglomerated flavor agents, spray-dried agglomerated flavor agents, granulated flavor agents, extruded flavor agents, encapsulated flavor agents, and mixtures thereof.

35. A composition according to Claim 34 wherein the iron is selected from the group consisting of ferrous sulfate, ferrous fumarate, ferrous succinate, ferrous gluconate, ferrous lactate, ferrous tartrate, ferrous citrate, ferrous amino acid chelates, ferrous pyrophsophate, ferric saccharate, ferric ammonium citrate, ferric citrate, ferric sulfate, ferric chloride, ferric pyrophosphate, and mixtures thereof.

36. A composition according to Claim 35 wherein greater than about 50% of the total flavor agent, by weight, has a particle size greater than about 106 microns.

37. A composition according to Claim 36 comprising from about 50% to about 93% of a bulking agent, by weight of the composition.

38. A composition according to Claim 37 wherein at least about 87% of the aspartame, by weight, has a particle size greater than about 106 microns.

39. A composition according to Claim 38 wherein less than about 10% of the aspartame, by weight, comprises particles having a particle size of less than about 45 microns.

40. A composition according to Claim 39 comprising from about 0.1% to about 3% of the aspartame, by weight of the composition.

41. A composition according to Claim 40 comprising iodine.

42. A composition according to Claim 40 wherein the iron is a ferrous amino acid chelate.

43. A composition according to Claim 42 having an Average Solubility Grade of about 6 or greater.

44. A composition according to Claim 30 having an Average Solubility Grade of about 5 or greater.

45. An essentially dry composition comprising:

a) from about 0.001% to about 25% of aspartame, by weight of the composition, wherein at least about 50% of the aspartame, by weight, comprises discrete aspartame particles having a particle size of greater than about 106 microns; and

b) from about 50 to about 96% of a bulking agent;

wherein the composition is suitable for use as a food or beverage.

46. A composition according to Claim 45 wherein at least about 75% of the aspartame, by weight, comprises discrete aspartame particles having a particle size of greater than about 106 microns.

47. A composition according to Claim 46 further comprising at least one nutrient selected from the group consisting of vitamin A, vitamin B, biotin, vitamin C, vitamin D, vitamin E, vitamin K, calcium, phosphorous, magnesium, potassium, iron, iodine, selenium, chromium, copper, fluorine, zinc, and mixtures thereof.

48. A composition according to Claim 47 further comprising a flavor agent.

49. A composition according to Claim 48 comprising from about 50% to about 93% of the total bulking agent, by weight of the composition, wherein the bulking agent comprises sucrose.

50. A composition according to Claim 49 wherein at least one flavor agent is selected from the group consisting of spray-dried flavor agents, agglomerated flavor agents, spray-dried agglomerated flavor agents, granulated flavor agents, extruded flavor agents, encapsulated flavor agents, and mixtures thereof.

51. A composition according to Claim 50 wherein greater than about 50% of the total flavor agent, by weight, has a particle size greater than about 106 microns.

52. A composition according to Claim 51 comprising from about 0.1% to about 3% of the aspartame, by weight of the composition.

53. A composition according to Claim 52 wherein less than about 10% of the aspartame, by weight, comprises aspartame particles having a particle size of less than about 45 microns.

54. A composition according to Claim 53 comprising at least three nutrients selected from the group consisting of vitamin A, riboflavin, niacinamide, vitamin B_6, folate, vitamin B_{12}, vitamin C, vitamin E, calcium, phosphorous, magnesium, potassium, iron, iodine, zinc, and mixtures thereof.

55. A composition according to Claim 54 having an Average Solubility Grade of about 6 or greater.

56. A composition according to Claim 45 having an Average Solubility Grade of about 5 or greater.

57. An essentially dry composition comprising:

a) from about 0.001% to about 25% of aspartame, by weight of the composition, wherein at least about 82% of the aspartame, by weight, comprises particles having a particle size of greater than about 106 microns; and

b) from about 50 to about 96% of a bulking agent, by weight of the composition;

wherein the composition is suitable for use as a food or beverage.

58. A composition according to Claim 57 further comprising at least one nutrient selected from the group consisting of vitamin A, vitamin B, biotin, vitamin C, vitamin D, vitamin E, vitamin K, calcium, phosphorous, magnesium, potassium, iron, iodine, selenium, chromium, copper, fluorine, zinc, and mixtures thereof.

59. A composition according to Claim 58 further comprising a flavor agent.

60. A composition according to Claim 59 comprising from about 50% to about 93% of the total bulking agent, by weight of the composition, wherein the bulking agent comprises sucrose.

61. A composition according to Claim 60 wherein at least one flavor agent is selected from the group consisting of spray-dried flavor agents, agglomerated flavor agents, spray-dried

agglomerated flavor agents, granulated flavor agents, extruded flavor agents, encapsulated flavor agents, and mixtures thereof.

62. A composition according to Claim 61 comprising from about 0.01% to about 10% of the aspartame, by weight of the composition.

63. A composition according to Claim 62 comprising from about 0.1% to about 3% aspartame, by weight of the composition, wherein at least about 87% of the aspartame, by weight, comprises particles having a particle size greater than about 106 microns.

64. A composition according to Claim 63 wherein less than about 10% of the aspartame, by weight, comprises particles having a particle size of less than about 45 microns.

65. A composition according to Claim 64 wherein greater than about 50% of the total flavor agent, by weight, has a particle size greater than about 106 microns.

66. A composition according to Claim 65 wherein less than about 5% of the aspartame, by weight, comprises particles having a particle size less than about 45 microns.

67. A composition according to Claim 66 wherein at least about 92% of the aspartame, by weight, comprises particles having a particle size greater than about 106 microns.

68. A composition according to Claim 67 comprising at least three nutrients selected from the group consisting of vitamin A, riboflavin, niacinamide, vitamin B_6, folate, vitamin B_{12}, vitamin C, vitamin E, calcium, phosphorous, magnesium, potassium, iron, iodine, zinc, and mixtures thereof.

69. A composition according to Claim 68 having an Average Solubility Grade of about 6 or greater.

70. A composition according to Claim 57 having an Average Solubility Grade of about 5 or greater.

71. An essentially dry composition comprising:

a) at least one nutrient selected from the group consisting of magnesium, iron, iodine, zinc, selenium, chromium, copper, fluorine, and mixtures thereof;

b) from about 0.001% to about 25% of aspartame, by weight of the composition, wherein at least about 50% of the aspartame, by weight, comprises particles having a particle size of greater than about 106 microns; and

c) from about 50 to about 96% of a bulking agent, by weight of the composition;

wherein the composition is suitable for use as a food or beverage.

72. A composition according to Claim 71 comprising from about 0.01% to about 10% aspartame, by weight of the composition.

73. A composition according to Claim 72 wherein at least about 75% of the aspartame, by weight, has a particle size greater than about 106 microns.

74. A composition according to Claim 73 comprising from about 18 milligrams to about 150 milligrams of iron, per 100 grams of the composition, and further comprising at least one further nutrient selected from the group consisting of calcium, phosphorous, potassium, vitamin A, vitamin B, biotin, vitamin C, vitamin D, vitamin E, vitamin K, and mixtures thereof.

75. A composition according to Claim 74 further comprising at least one flavor agent selected from the group consisting of spray-dried flavor agents, agglomerated flavor agents, spray-dried agglomerated flavor agents, granulated flavor agents, extruded flavor agents, encapsulated flavor agents, and mixtures thereof.

76. A composition according to Claim 75 wherein the iron is selected from the group consisting of ferrous sulfate, ferrous fumarate, ferrous succinate, ferrous gluconate, ferrous lactate, ferrous tartrate, ferrous citrate, ferrous amino acid chelates, ferrous pyrophsophate, ferric saccharate, ferric ammonium citrate, ferric citrate, ferric sulfate, ferric chloride, ferric pyrophosphate, and mixtures thereof.

77. A composition according to Claim 76 wherein greater than about 50% of the total flavor agent, by weight, has a particle size greater than about 106 microns.

78. A composition according to Claim 77 comprising from about 50% to about 93% of a bulking agent, by weight of the composition.

79. A composition according to Claim 78 wherein at least about 87% of the aspartame, by weight, has a particle size greater than about 106 microns.

80. A composition according to Claim 79 wherein less than about 10% of the aspartame, by weight, comprises particles having a particle size of less than about 45 microns.

81. A composition according to Claim 80 comprising from about 0.1% to about 3% of aspartame, by weight of the composition.

82. A composition according to Claim 81 comprising iodine.

83. A composition according to Claim 81 wherein the iron is a ferrous amino acid chelate.

84. A composition according to Claim 83 having an Average Solubility Grade of about 6 or greater.

85. A composition according to Claim 71 having an Average Solubility Grade of about 5 or greater.

93. A beverage comprising the composition according to Claim 1 selected from the group consisting of:

a) a ready-to-drink beverage comprising, by weight of the beverage, from about 0.01% to about 30% of the composition; and
b) a concentrate comprising, by weight of the beverage, from about 1% to about 80% of the composition.

94. A beverage comprising the composition according to Claim 14 selected from the group consisting of:

a) a ready-to-drink beverage comprising, by weight of the beverage, from about 0.01% to about 30% of the composition; and
b) a concentrate comprising, by weight of the beverage, from about 1% to about 80% of the composition.

95. A beverage comprising the composition according to Claim 30 selected from the group consisting of:

a) a ready-to-drink beverage comprising, by weight of the beverage, from about 0.01% to about 30% of the composition; and
b) a concentrate comprising, by weight of the beverage, from about 1% to about 80% of the composition.

96. A beverage comprising the composition according to Claim 45 selected from the group consisting of:

a) a ready-to-drink beverage comprising, by weight of the beverage, from about 0.01% to about 30% of the composition; and
b) a concentrate comprising, by weight of the beverage, from about 1% to about 80% of the composition.

97. A beverage comprising the composition according to Claim 57 selected from the group consisting of:

a) a ready-to-drink beverage comprising, by weight of the beverage, from about 0.01% to about 30% of the composition; and
b) a concentrate comprising, by weight of the beverage, from about 1% to about 80% of the composition.

98. A beverage comprising the composition according to Claim 71 selected from the group consisting of:

a) a ready-to-drink beverage comprising, by weight of the beverage, from about 0.01% to about 30% of the composition; and
b) a concentrate comprising, by weight of the beverage, from about 1% to about 80% of the composition.

102. An essentially dry composition comprising:

a) from about 0.001% to about 25%, by weight of the composition, of a high intensity sweetener consisting essentially of aspartame, wherein at least about 50% of the aspartame, by weight, has a particle size of greater than about 106 microns; and
b) a bulking agent, wherein the composition comprises less than about 96% of the bulking agent;

wherein the composition is suitable for use as a food or beverage.

P&G Case 8557

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the Application of	:	
Dake *et al.*	:	Confirmation No.: 6421
Serial No.: 09/853,391	:	Group Art Unit: 1761
Filed: May 11, 2001	:	Examiner: H. Pratt

For COMPOSITIONS HAVING ENHANCED AQUEOUS SOLUBILITY AND METHODS OF THEIR PREPARATION

APPEAL BRIEF

Mail Stop Appeal Brief – Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Appellants hereby appeal to the Board of Appeals the decision (Advisory Action) of the Examiner dated December 17, 2003, maintaining in certain respects the final rejection of Claims 1-85, 93-98 and 102 as set forth in the Office Action dated July 14, 2003. This Brief is being filed in triplicate.

The Notice of Appeal for this application was filed on November 14, 2003, and was received by the Office on November 17, 2003, making the Brief due without extension on January 17, 2004. Because that date falls on a Saturday and the subsequent Monday (January 19th) is a Federal Holiday, this Brief is due without extension fees on or before January 20, 2004.

REAL PARTY IN INTEREST

The real party in interest is The Procter & Gamble Company, assignee of Appellants' entire right, title and interest in the invention at issue. A copy of this Assignment was recorded at the United States Patent and Trademark Office on August 8, 2002, at reel # 012970, frame # 0460.

RELATED APPEALS AND INTERFERENCES

Appellants, Appellants' undersigned legal representative, and Assignee are not aware of any pending appeals or interferences that would be directly affected by or have a bearing on the Board's decision in the subject Appeal.

STATUS OF CLAIMS

Claims 1-85, 93-98 and 102 are the subject of this appeal. No other claims are pending or allowed.

The present application was originally filed with Claims 1-98. In a preliminary amendment dated August 30, 2002, Claims 99-101 were added. In a response dated May 5, 2003, Appellants canceled Claims 86-92 and 99-101 (which were drawn to non-elected subject matter as a result of a restriction requirement) and added Claim 102.

Claims 1-85, 93-98 and 102 were finally rejected in an Office Action dated July 14, 2003 under 35 U.S.C. §103(a) as being obvious in view of various references. Claim 102 was also rejected as being indefinite under 35 U.S.C. §112(2) and as being anticipated under 35 U.S.C. §102(b).

In the Advisory Action dated December 17, 2003, the Examiner entered Appellants' after-final amendment to Claim 102 and withdrew the Section 102(b) rejection. Although the Section 103(a) rejections were maintained, it is not clear whether the Section 112(2) rejection of Claim 102 was withdrawn. Based on the Examiner's indication in the Advisory Action that Appellants' last response did not place the application in condition for allowance because "of the state of the art," Appellants assume the Section 112(2) rejection has also been withdrawn.

Based on the foregoing, the status of the claims is as follows:

Claims Allowed: None
Claims Objected To: None
Claims Rejected: 1-85, 93-98 and 102

The claims on Appeal are set forth in Appendix A.

STATUS OF AMENDMENTS

Subsequent to the Examiner's July 14, 2003, Office Action (hereafter "Final Action") finally rejecting Claims 1-85, 93-98, and 102, Appellants filed an after-final response that included a proposed amendment to Claim 102. In the Advisory Action dated December 17, 2003, the Examiner entered the amendment to Claim 102.

SUMMARY OF THE INVENTION

The invention claimed in the present application is directed to essentially dry compositions that contain a high intensity sweetener (e.g., aspartame) and exhibit good solubility despite the presence of relatively insoluble, poorly wetting, or hydrophobic ingredients, [p. 2, lines 3-5] and to beverages comprising the compositions [p. 16, lines 21-26]. In particular, the compositions of the present invention have enhanced dispersibility when added to a liquid (*e.g.*, water) and, therefore, enhanced solubility by virtue of the defined particle size of the sweetener therein. Appellants discovered that surprisingly, by combining ingredients to arrive at compositions defined by the pending claims, the use of high intensity sweeteners having a relatively larger particle size actually contributes positively to solubility of the overall composition. [p. 2, lines 5-9] As is discussed below, the art does not teach the compositions within the pending claims.

From a compositional standpoint, the invention covered by Claims 1-85 relates generally to essentially dry compositions that comprise (i) a high intensity sweetener (about 0.001% to 25% by weight) where at least about 50% of the sweetener is in the form of discrete particles having a particle size greater than 106 microns and (ii) a bulking agent (about 50 to about 96%). [p. 3, lines 4-11; p. 10, lines 8-9] Claim 102 is directed to essentially dry compositions that comprise (i) a high intensity sweetener (about 0.001% to 25% by weight) consisting essentially of aspartame, where at least about 50% of the aspartame is in the form of discrete particles having a particle size greater than 106 microns and (ii) a bulking agent (not more than about 96%).

ISSUE[1]

Are the compositions of Claims 1-85 and 102 and the beverages of Claims 93-98 patentable under 35 U.S.C. § 103(a) in view of the references cited by the Examiner?

GROUPING OF CLAIMS

Claims 1-85, 93-98, and 102 are within the same patentable grouping and, therefore, stand or fall together.

ARGUMENTS

(A) The Examiner's Positions:

(1) Claims 1, 2, 14-29, 45-85 and 102

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[1] As indicated in the Status of Claims section, Appellants assume that the Section 112(2) rejection of Claim 102 has been withdrawn. If this is improper, Appellants request that the Examiner so indicate in the Answer such that Appellants can properly brief the Board on this issue.

Claims 1, 2, 14-29, 45-85 and 102 are rejected under 35 U.S.C. 103(a) over U.S. Patent No. 6,399,132 to Ishida et al. ("Ishida") or U.S. Patent No. 5,968,580 to Chuang et al. ("Chuang") in view of the Sweet'n Low product and U.S. Patent No. 5,473,097 to Kishimoto et al. ("Kishimoto"). With respect to this aspect of the rejection, the Examiner first states that "[t]he independent claims are rejected for the reasons of record cited in the last office action and for these further reasons." [Final Action, at p. 3.] The Examiner then refers to Claim 1's element requiring from about 50 to about 96%, by weight, of a bulking agent. The Examiner indicates that this is in the range disclosed by the Sweet'n Low product. She also refers to Kishimoto for the teaching of aspartame particle sizes in the 100 to 500 micron range. She then concludes that "it would have been obvious to use the claimed amount and particle size in the process of Ishida et al. or Chuang et al. because these references disclose the higher range of more than 106 microns and Kishimoto et al. discloses usefulness of the lower range of 150."

With respect to Claim 102, the Examiner states that

> [t]he amount of bulking agent in SWEET'N LOW as above is less than 95%. The above reference [sic] disclose compositions containing the claimed particle size of less than 500 microns which reads on 106 microns in Ishida et al. as above and particles of 150 microns in Chuang et al. as above. It is not known what applicants have excluded by the use of the phrase 'consisting essentially of aspartame'. In any event a product made by Safeway which is aspartame SWEETENER contains only aspartame and maltodextrin. Also, Kishimoto et al. disclose that it is known to make aspartame particles by granulation to be from 100 to 500 microns and within the preferable range of 150 to 300 microns. Therefore it would have been obvious to make a product containing only aspartame and other ingredients which do not affect the composition and to use the claimed particle size.

See Final Action, p. 4.

(2) Claims 3-13:

Although not referring to Claims 3-13 specifically, the Examiner states that "[t]he further claims except claim 102 and claims 30-44 and 93-98 have been rejected as in the previous office action."

(3) Claims 30-44 and 93-98

Claims 30-44 and 93-98 are rejected under 35 U.S.C. 103(a) over Ishida or Chuang in view of the Sweet'n Low product and Kishimoto and U.S. Application Publication No. 2001/0016208A1 by Valentine et al. ("Valentine") and U.S. Patent No. 6,056,949 ("Menzi") and U.S. Patent No. 6,455,511 ("Kampinga").

(B) Appellants' Positions:

Before addressing the three (3) sets of rejections set forth by the Examiner, Appellants first wish to note that other than Claim 102, all claims directed to essentially dry compositions are subsumed by Claim 1. That is, even independent Claims 14, 45, 57 and 71, are subsumed by Claim 1, as they simply provide narrower ranges for certain of the elements set forth in Claim 1. Because Appellants are of the view that Claim 1 is patentable over the cited art, most of the discussion below focuses on Claim 1. Similarly, assuming Claim 1 is patentable, beverage claims 93-98 are also patentable. As Claim 102 is broader in some respects to Claim 1, it is discussed separate from Claims 1, 2, 14-29, and 45-85.

(1) Claims 1, 2, 14-29, 45-85 and 102

Before addressing the 'further reasons' statement by the Examiner, Appellants respectfully submit that a simple statement maintaining the prior rejections, without a discussion of how the references teach the limitations of the claims, particularly the bulking agent limitation added to the claims in the May 5, 2003 response, is not sufficient to permit a meaningful response by Appellants. MPEP § 706.02(j) provides that to maintain a proper Section 103 rejection

> the examiner should set forth in the Office action (A) the relevant teachings of the prior art, preferably with reference to the relevant column or page number(s) and line number(s) where appropriate, (B) the difference or differences in the claim over the applied reference(s), (C) the proposed modification of the applied reference(s) necessary to arrive at the claimed subject matter, and (D) an explanation why one of ordinary skill in the art at the time of the invention was made would have been motivated to make the proposed modifications.

Appellants respectfully submit that the Examiner did not properly set forth a rejection, insofar as she simply incorporated the rejections set forth in the Office Action dated December 5, 2002 (hereafter "First Action"). Other than Claim 102, the claims presented in the response to the First Action were amended to add the limitation around the amount of the bulking agent. As the reasons for rejection in the First Action said nothing about the level of bulking agent described by the references, this aspect of the Examiner's rejection in the Final Action improperly omits, at a minimum, the requisite specificity required by subsections (B) and (C) of MPEP §706.02(j). While Appellants will articulate below why the rejection is improper substantively, this improperly requires Appellants to make assumptions or interpretations of the art that are the responsibility of the Examiner to set forth in the first instance. (And since Claim 1 subsumes the inventions claimed by Claims 2, 14-29, 45-85 and is rejected over the same art cited in the First Action, it is believed that successfully traversing the rejection set forth in the Final Action will obviate the art rejections set forth in the First Action.)

As a standard for assessing obviousness, MPEP §706.02(j) lists three requirements for establishing a *prima facie* case under 35 U.S.C. §103. First, there must be some suggestion or

motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference(s) to arrive at the claimed invention. Second, there must be a reasonable expectation of success. Finally, the prior art reference(s) must teach or suggest all of the claim limitations.

Before addressing the elements for establishing a *prima facie* case, Appellants respectfully submit that it is not clear from the rejection how the various references are being combined in rendering the claims obvious. Are the teachings of all four (4) references being combined, or are Ishida and Chuang each being modified by the other two references to result in two separate obviousness rejections? Appellants requested clarity on this is issue, but it was not addressed in the Advisory Action. (Nonetheless, Appellants proceed under the assumption that the mentioned claims are rejected over Ishida in view of Sweet'n Low and Kishimoto, and separately over Chuang in view of Sweet'n Low and Kishimoto.)

In the Final Action, the Examiner refers to Claim 1's element requiring from about 50 to about 96%, by weight, of a bulking agent. The Examiner indicates that this is in the range disclosed by the Sweet'n Low product. She also refers to Kishimoto for the teaching of aspartame particle sizes in the 100 to 500 micron range. She then concludes that "it would have been obvious to use the claimed amount and particle size in the process of Ishida et al. or Chuang et al. because these references disclose the higher range of more than 106 microns and Kishimoto et al. discloses usefulness of the lower range of 150."

Appellants submit that the rejection of Claims 1, 2, 14-29, and 45-85 fails to meet at least the first and third requirements for establishing a *prima facie* case of obviousness pursuant to case law and the clear letter of the MPEP. First, the Examiner has shown no motivation in the cited art to combine, in any manner, the references' teachings in the first instance. Ishida's primary teaching is that the inclusion of Ace-K (a sweetener) with aspartame, in specifically defined ratios, enhances the solubility of the aspartame. Chuang is directed to tea-solids containing beverages that have reduced sediment qualities. The primary teaching is that bulk aspartame and aspartame-coated acid, when combined with tea solids, provides a reduced sediment product on reconstitution. The Sweet'n Low product is a saccharin-containing sweetener system that is not typically ingested itself, but instead is used to sweeten food or beverage products. And Kishimoto is directed to granules of aspartame that include crystals in the IB form (IB crystals) where those crystals have a particular grain size range.

Clearly, the subject matter described in the cited prior art are very different from one another. One skilled in the art is provided no motivation to look to the Sweet'n Low product or the Kishimoto reference to modify the teachings of Ishida or Chuang. Specifically, there is nothing in the disclosure by Ishida that suggests modifying the aspartame/Ace-K combination described therein with an end-use sweetener composition such as Sweet'n Low or with

Kishimoto's teachings around a particular crystal form for aspartame. Similarly, there is no motivation to combine the tea-containing beverage of Chuang with either of these prior art references. Appellants respectfully submit that no such motivation exists in the prior art generally. Because the Examiner has not satisfied the first prong of MPEP § 706(j), Appellants submit that the Section 103 rejection is improper.

Furthermore, a complete consideration of each reference's teachings will demonstrate that even if combined, the references do not teach Appellants' claimed compositions as required by the third prong of MPEP § 702(j). Specifically, the Examiner has provided no basis to establish that all the claim elements required by the pending claims are taught by the prior art.

Ishida teaches the importance of the Ace-K / aspartame relationship that results in enhanced solubility of the aspartame component. In discussing the importance of combining aspartame and Ace-K, Ishida teaches that the particle size of the aspartame will impact dissolution properties, regardless of the Ace-K/aspartame ratio. (See Col. 3, lines 14-18.) In this regard, Ishida states that "too large particle size of the granules [of aspartame] may result in reduction of the interface area where the particles and the water are in contact, which may, in turn, take a prolonged time period for dissolution." (*See* Col. 3, lines 24-27.) Interestingly, in spite of the admitted importance of aspartame particle size, Ishida does not provide a range of acceptable particle sizes for this component (in contrast to the specific ranges taught for the Ace-K material). The only discussion of aspartame particle size is in the "Best Mode" section commencing at Col. 4. In Experiment 1, a dissolution comparison is made between aspartame alone and aspartame combined with Ace-K. The aspartame used has an average particle size of 15μm and a maximum particle size of 100 μm; the data shows enhanced aspartame dissolution in the presence of Ace-K. Experiment 2 then considers whether benefits are seen at larger aspartame particle sizes. The corresponding Table 2 data indicate there are benefits relative to aspartame alone, but one also sees that use of smaller aspartame particles (those tested in Experiment 1) provides enhanced dissolution times compared to larger particle sizes at all the aspartame:Ace-K ratios tested. From this data, one would reasonably conclude that smaller aspartame particle size is preferred over larger particle size. One could also reasonably conclude that if a bulking agent were included with the Ace-K and aspartame, the importance of small particle size aspartame would become even more important. There is certainly no indication that the use of aspartame having a particle size greater than 106 microns would provide beneficial dispersibility/solubility properties. In sum, as to the particle size aspect of Appellants' claims, the MPEP and case precedent clearly require that aspects of the prior art that teach away must be considered when assessing claims under Section 103.

Ishida also discloses the optional use of a diluent or excipient, such as sugar alcohol, oligosaccharide or dietary fiber. However, no amounts for these materials are taught. Rather, at

Col. 4, Ishida merely says that the diluent may be included "as long as the improved solubility of APM according to the present invention is not affected adversely." Notably, in doing the data comparison to demonstrate the enhanced dispersibility of Ace-K plus aspartame versus aspartame alone, no excipient is used.

Independent Claims 1, 14, 30, 45, 57 and 71 require the inclusion of from about 50% to about 96%, by weight of the composition, of a bulking agent. While Ishida discusses the possibility of including certain diluents within Appellants' description of a bulking agent, as noted there is no teaching of how much can be included while still achieving the benefit sought by Ishida. All Ishida says is that materials other than aspartame and Ace-K cannot be included at such a level as to impair the effect the Ace-K has on preventing agglomeration of the aspartame particles. While no particular diluent levels are taught by Ishida, Appellants submit that the reference clearly does not teach or suggest a composition comprising at least 50%, by weight, bulking agent. Accordingly, Appellants submit that Ishida does not teach or suggest the dry compositions encompassed by Claims 1-85 and 93-98.

With respect to the bulking agent aspect of the claims, the Examiner acknowledges that Ishida does not teach the invention and apparently relies on the Sweet'n Low product to teach Appellants' bulking agent limitation (about 50 to about 96%) and Kishimoto to teach the high intensity sweetener particle size (greater than 106 μm). The Examiner has shown no reason to conclude that the skilled artisan would have taken this teaching from the Sweet'n Low product and combined it with the teaching of Ishida. And what's more, even after combining those teachings to get to the bulking agent limitation, one still does not arrive at the claimed high intensity sweetener particle size. For this, the Examiner relies on Kishimoto. Without delving into the shortcomings of Kishimoto in terms of its alleged disclosure of an aspartame particle size greater than 106 microns (the reference actually talks about the size of certain aspartame crystals as part of an aspartame granule composition), Appellants submit that there is simply no motivation to combine those specific aspects of Kishimoto with <u>both</u> Ishida and Sweet'n Low. Indeed, in piecing together the rejection based on Ishida, Sweet'n Low and Kishimoto, the Examiner is clearly picking and choosing from the various references' teachings to attempt to arrive at Appellants' claimed compositions. However, the picking and choosing is done without any guidance from the teachings of the cited art. So, even if one were motivated to combine the references' teachings in the first instance, one does not arrive at a composition having high intensity sweetener where at least about 50% of the particles have a particle size greater 106 microns and having a bulking agent at a level of from about 50 to about 96%. As the combination of references does not suggest all the claim limitations, the Examiner's rejection of Claims 1, 2, 14-29, and 45-85 over Ishida in view of Sweet'n Low and Kishimoto is improper and Appellants request that the Board reverse this aspect of the Examiner's rejection.

Chuang is directed to tea-containing beverage mixes comprising tea solids, bulk aspartame and aspartame-coated acid. In discussing the contribution of the two aspartame-related elements, Chuang states that it is believed that the bulk aspartame prevents grinding of tea solids into fines, which cause wetting problems. Importantly, with respect to the bulk aspartame aspect, Chuang states that at least 80% of the aspartame should pass through a No. 100 sieve - i.e., the particles are smaller than 150 microns. Chuang does not disclose a particular preferred size other than the qualitative "less than 150 microns." As for the aspartame coated acids, Chuang indicates that this provides the benefit of slowing dissolution of the acid, which enables the tea solids to dissolve before the pH of the solution is fully lowered. Chuang states that the aspartame-coated acids should be of a particle size greater than 150 micron and less than 420 micron. Clearly, Chuang does not teach Appellants' claim limitation of at least 50% of the high intensity sweetener having a particle size greater than about 106 microns.

While describing the components and their preferred levels in some detail, Chuang mentions, at Col. 3, that additional functional agents - flavor enhancers, colors, vitamins, minerals, and flow agents - may also be included. There is no teaching or suggestion of including the bulking agents required by Appellants' claims. Further, no levels of the optional functional agents are provided. The only mention of the amount of these functional ingredients is in Examples 1 and 2, which include 6.1% and 8.4%, respectively. Thus, to the extent Chuang discusses bulking agents in passing, the levels are much lower than the ranges in Appellants' Claims 1, 2, 14-29 and 45-85.

The Examiner properly concludes that Chuang by itself does not teach or suggest compositions containing the bulking agent required by Appellants' Claims 1, 2, 14-29 and 45-85. Indeed, to the extent Chuang teaches any specificity as to the level of bulking agent to include, the suggestion is to use levels far below Appellants' claimed range of from about 50 to about 96%. As with the shortcoming of Ishida, the Examiner relies on the Sweet'n Low product to teach the bulking agent and Kishimoto to teach the high intensity sweetener particle size. But for the reasons discussed with respect to Ishida, this picking and choosing from the cited references both ignores some of the references' teachings and uses hindsight based on Appellants' specification to arrive at the claimed compositions. Appellants respectfully submit that the rejection of Claims 1, 2, 14-29, and 45-85 over Chuang in view of Sweet'n Low and Kishimoto is improper. Appellants therefore request that the Board reverse this aspect of the rejection.

Turning to Claim 102, this claim presently covers essentially dry compositions comprising a high intensity sweetener consisting essentially of aspartame, wherein at least about 50% of the aspartame has a particle size greater than about 106 microns; and less than about 96% bulking agent. Before discussing the teachings of the references, Appellants submit that the Examiner has provided no basis for combining the cited art's teachings in the first instance.

Rather, hindsight is used to find art that very generally describes the various claimed parameters, and thereafter that art is combined in such a manner as to allegedly arrive at the invention covered by Claim 102. As discussed above, this hindsight reconstruction is improper and the rejection fails the first prong MPEP §706.02(j).

Substantively, Appellants believe the Examiner's position is that Ishida and Chuang teach aspartame particle sizes in Appellants' claimed range of greater than about 106 microns and that Sweet'n Low and Kishimoto teach the bulking agent aspect. Again, as discussed above, Appellants submit that a fair reading of Ishida and Chuang does not suggest use of aspartame where at least 50% of the aspartame has a particle size greater than about 106 microns. And moreover, both of these primary references describe the incorporation of a second high intensity sweetener – Ace K in Ishida and aspartame-coated acid in Chuang. Neither of these references remotely suggests using aspartame as the only high intensity sweetener. The deficiency is not cured by turning to Sweet'n Low or Kishimoto.

The Examiner then makes a new rejection based on a Safeway product that is asserted to contain only aspartame and maltodextrin (bulking agent). Irrespective of the appropriateness of this rejection, the Examiner makes no assertion as to the particle size of the aspartame utilized. While appearing to realize that Appellants' particle size requirement is not taught, the Examiner asserts that Kishimoto teaches that aspect of the claim. But again, Kishimoto is concerned with aspartame particle size where a particular crystal form is employed – specifically the IB crystal form. Kishimoto notes that only when a high percentage (90 wt % or more) of this IB crystal form is used does the importance of particle size become important. And the discussion in Kishimoto focuses almost exclusively on the use of the IB crystalline form of aspartame as a sweetener sold in individual packets. There is no discussion of inclusion of a bulking agent, nor is there any suggestion that the teachings around the preferred particle size range are relevant when aspartame is used in a composition similar to that within Claim 102.

Most importantly, as mentioned above, upon combining Kishimoto with Ishida or Chuang, one would more readily arrive at a composition that includes aspartame and another high intensity sweetener. There is no motivation in Kishimoto to eliminate the second sweetener material in Ishida or Chuang to arrive at the compositions of Claim 102.

For the foregoing reasons, Appellants request that the Board reverse the Examiner's Section 103(a) rejection of Claim 102.

(2) Claims 3-13:

Claims 3-13 are all dependent, either directly or indirectly, on Claim 1 or Claim 2. Appellants' argument concerning the lack of specificity of the Examiner's rejection, particularly in view of Appellants' amendment concerning the bulking agent aspect of the claims, are equally

applicable here. The Examiner simply has not satisfied the requirements of MPEP § 706.02(j) in rejecting Appellants' amended claims.

Substantively, because these claims are dependent on Claim 1, the Board's reversal of the Section 103(a) rejections of Claim 1 would dictate reversal of the rejection of Claims 3-13. Such reversal is requested by Appellants.

(3) Claims 30-44 and 93-98

With respect to Claims 30-44, Appellants submit that these claims are narrower than Claim 1, insofar as they all require that a relatively higher level of the high intensity sweetener be of a particle size greater than 106 μm. As such, Appellants submit that these claims are patentable over the cited art for the reasons discussed above.

As for Claims 93-98, they are directed to beverages comprising the composition of the various dependent claims discussed herein. Because the compositions themselves are patentable over the prior art, beverage Claims 93-98 are also patentable.

Appellants request reversal of the Section 103(a) rejections Claims 30-44 and 93-98.

CONCLUSION

It is respectfully submitted that the Examiner's rejections of Claims 1-85, 93-98 and 102 under 35 U.S.C. § 103(a) are improper. Reversal of these rejections by the Board is therefore respectfully requested.

Respectfully submitted,

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APPENDIX A

Claims on Appeal

1. An essentially dry composition comprising:
   a) from about 0.001% to about 25% of a high intensity sweetener, by weight of the composition, wherein at least about 50% of the total high intensity sweetener, by weight, comprises discrete high intensity sweetener particles having a particle size of greater than about 106 microns; and
   b) from about 50 to about 96% of a bulking agent;

wherein the composition is suitable for use as a food or beverage.

2. A composition according to Claim 1 wherein at least about 75% of the total high intensity sweetener, by weight, comprises discrete high intensity sweetener particles having a particle size of greater than about 106 microns, and wherein at least one high intensity sweetener is selected from the group consisting of lo han guo, thaumatin, stevioside, acesulfame K, dipeptide sweeteners, sucralose, saccharin, and mixtures thereof.

3. A composition according to Claim 2 further comprising at least one nutrient selected from the group consisting of vitamin A, vitamin B, biotin, vitamin C, vitamin D, vitamin E, vitamin K, calcium, phosphorous, magnesium, potassium, iron, iodine, selenium, chromium, copper, fluorine, zinc, and mixtures thereof.

4. A composition according to Claim 3 further comprising a flavor agent.

5. A composition according to Claim 4 comprising from about 50% to about 93% of the total bulking agent, by weight of the composition, wherein the bulking agent comprises sucrose.

6. A composition according to Claim 5 wherein at least one flavor agent is selected from the group consisting of spray-dried flavor agents, agglomerated flavor agents, spray-dried agglomerated flavor agents, granulated flavor agents, extruded flavor agents, encapsulated flavor agents, and mixtures thereof.

7. A composition according to Claim 6 comprising from about 0.01% to about 10% of the total high intensity sweetener, by weight of the composition, wherein at least one high intensity sweetener is selected from the group consisting of acesulfame K, aspartame, and sucralose.

8. A composition according to Claim 7 wherein greater than about 50% of the total flavor agent, by weight, has a particle size greater than about 106 microns.

9. A composition according to Claim 8 comprising:

a) from about 0.1% to about 3% of the aspartame, by weight of the composition, and wherein greater than about 75% of the aspartame, by weight, comprises discrete aspartame particles having a particle size of greater than about 106 microns; and

b) from about 50% to about 93% of the total bulking agent, by weight of the composition, wherein the bulking agent comprises sucrose.

10. A composition according to Claim 9 wherein less than about 10% of the total high intensity sweetener, by weight, comprises particles having a particle size of less than about 45 microns.

11. A composition according to Claim 10 comprising at least three nutrients selected from the group consisting of vitamin A, riboflavin, niacinamide, vitamin B_6, folate, vitamin B_{12}, vitamin C, vitamin E, calcium, phosphorous, magnesium, potassium, iron, iodine, zinc, and mixtures thereof.

12. A composition according to Claim 11 having an Average Solubility Grade of about 6 or greater.

13. A composition according to Claim 1 having an Average Solubility Grade of about 5 or greater.

14. An essentially dry composition comprising:

a) from about 0.001% to about 25% of a high intensity sweetener, by weight of the composition, wherein at least about 82% of the total high intensity sweetener, by weight, comprises particles having a particle size of greater than about 106 microns; and

b) from about 50 to about 96% of a bulking agent, by weight of the composition;

wherein the composition is suitable for use as a food or beverage.

15. A composition according to Claim 14 wherein at least one high intensity sweetener is selected from the group consisting of lo han guo, thaumatin, stevioside, acesulfame K, dipeptide sweeteners, sucralose, saccharin, and mixtures thereof.

16. A composition according to Claim 15 further comprising at least one nutrient selected from the group consisting of vitamin A, vitamin B, biotin, vitamin C, vitamin D, vitamin E, vitamin K, calcium, phosphorous, magnesium, potassium, iron, iodine, selenium, chromium, copper, fluorine, zinc, and mixtures thereof.

17. A composition according to Claim 16 further comprising a flavor agent.

18. A composition according to Claim 17 comprising from about 50% to about 93% of the total bulking agent, by weight of the composition, wherein the bulking agent comprises sucrose.

19. A composition according to Claim 18 wherein at least one flavor agent is selected from the group consisting of spray-dried flavor agents, agglomerated flavor agents, spray-dried agglomerated flavor agents, granulated flavor agents, extruded flavor agents, encapsulated flavor agents, and mixtures thereof.

20. A composition according to Claim 19 comprising from about 0.01% to about 10% of the total high intensity sweetener, by weight of the composition, wherein at least one high intensity sweetener is selected from the group consisting of acesulfame K, aspartame, sucralose, and mixtures thereof.

21. A composition according to Claim 20 wherein at least about 87% of the total high intensity sweetener, by weight, comprises particles having a particle size greater than about 106 microns.

22. A composition according to Claim 21 wherein less than about 10% of the total high intensity sweetener, by weight, comprises particles having a particle size of less than about 45 microns.

23. A composition according to Claim 22 comprising from about 0.1% to about 3% aspartame, by weight of the composition.

24. A composition according to Claim 23 wherein greater than about 50% of the total flavor agent, by weight, has a particle size greater than about 106 microns.

25. A composition according to Claim 24 wherein less than about 5% of the aspartame, by weight, comprises particles having a particle size less than about 45 microns.

26. A composition according to Claim 25 wherein at least about 92% of the total high intensity sweetener, by weight, comprises particles having a particle size greater than about 106 microns.

27. A composition according to Claim 26 comprising at least three nutrients selected from the group consisting of vitamin A, riboflavin, niacinamide, vitamin B_6, folate, vitamin B_{12}, vitamin C, vitamin E, calcium, phosphorous, magnesium, potassium, iron, iodine, zinc, and mixtures thereof.

28. A composition according to Claim 27 having an Average Solubility Grade of about 6 or greater.

29. A composition according to Claim 14 having an Average Solubility Grade of about 5 or greater.

30. An essentially dry composition comprising:

a) from about 0.001% to about 25% of a high intensity sweetener, by weight of the composition, wherein at least about 82% of the total high intensity sweetener, by weight, comprises particles having a particle size of greater than about 106 microns; and

b) from about 50 to about 96% of a bulking agent, by weight of the composition;

wherein the composition is suitable for use as a food or beverage.

31. A composition according to Claim 30 wherein the high intensity sweetener comprises from about 0.01% to about 10% aspartame, by weight of the composition, wherein at least about 50% of the aspartame, by weight, has a particle size greater than about 106 microns.

32. A composition according to Claim 31 wherein at least about 75% of the aspartame, by weight, has a particle size greater than about 106 microns.

33. A composition according to Claim 32 comprising from about 18 milligrams to about 150 milligrams of iron, per 100 grams of the composition, and further comprising at least one further nutrient selected from the group consisting of calcium, phosphorous, potassium, vitamin A, vitamin B, biotin, vitamin C, vitamin D, vitamin E, vitamin K, and mixtures thereof.

34. A composition according to Claim 33 further comprising at least one flavor agent selected from the group consisting of spray-dried flavor agents, agglomerated flavor agents, spray-dried agglomerated flavor agents, granulated flavor agents, extruded flavor agents, encapsulated flavor agents, and mixtures thereof.

35. A composition according to Claim 34 wherein the iron is selected from the group consisting of ferrous sulfate, ferrous fumarate, ferrous succinate, ferrous gluconate, ferrous lactate, ferrous tartrate, ferrous citrate, ferrous amino acid chelates, ferrous pyrophsophate, ferric saccharate, ferric ammonium citrate, ferric citrate, ferric sulfate, ferric chloride, ferric pyrophosphate, and mixtures thereof.

36. A composition according to Claim 35 wherein greater than about 50% of the total flavor agent, by weight, has a particle size greater than about 106 microns.

37. A composition according to Claim 36 comprising from about 50% to about 93% of a bulking agent, by weight of the composition.

38. A composition according to Claim 37 wherein at least about 87% of the aspartame, by weight, has a particle size greater than about 106 microns.

39. A composition according to Claim 38 wherein less than about 10% of the aspartame, by weight, comprises particles having a particle size of less than about 45 microns.

40. A composition according to Claim 39 comprising from about 0.1% to about 3% of the aspartame, by weight of the composition.

41. A composition according to Claim 40 comprising iodine.

42. A composition according to Claim 40 wherein the iron is a ferrous amino acid chelate.

43. A composition according to Claim 42 having an Average Solubility Grade of about 6 or greater.

44. A composition according to Claim 30 having an Average Solubility Grade of about 5 or greater.

45. An essentially dry composition comprising:

a) from about 0.001% to about 25% of aspartame, by weight of the composition, wherein at least about 50% of the aspartame, by weight, comprises discrete aspartame particles having a particle size of greater than about 106 microns; and

b) from about 50 to about 96% of a bulking agent;

wherein the composition is suitable for use as a food or beverage.

46. A composition according to Claim 45 wherein at least about 75% of the aspartame, by weight, comprises discrete aspartame particles having a particle size of greater than about 106 microns.

47. A composition according to Claim 46 further comprising at least one nutrient selected from the group consisting of vitamin A, vitamin B, biotin, vitamin C, vitamin D, vitamin E, vitamin K, calcium, phosphorous, magnesium, potassium, iron, iodine, selenium, chromium, copper, fluorine, zinc, and mixtures thereof.

48. A composition according to Claim 47 further comprising a flavor agent.

49. A composition according to Claim 48 comprising from about 50% to about 93% of the total bulking agent, by weight of the composition, wherein the bulking agent comprises sucrose.

50. A composition according to Claim 49 wherein at least one flavor agent is selected from the group consisting of spray-dried flavor agents, agglomerated flavor agents, spray-dried agglomerated flavor agents, granulated flavor agents, extruded flavor agents, encapsulated flavor agents, and mixtures thereof.

51. A composition according to Claim 50 wherein greater than about 50% of the total flavor agent, by weight, has a particle size greater than about 106 microns.

52. A composition according to Claim 51 comprising from about 0.1% to about 3% of the aspartame, by weight of the composition.

53. A composition according to Claim 52 wherein less than about 10% of the aspartame, by weight, comprises aspartame particles having a particle size of less than about 45 microns.

54. A composition according to Claim 53 comprising at least three nutrients selected from the group consisting of vitamin A, riboflavin, niacinamide, vitamin B_6, folate, vitamin B_{12}, vitamin C, vitamin E, calcium, phosphorous, magnesium, potassium, iron, iodine, zinc, and mixtures thereof.

55. A composition according to Claim 54 having an Average Solubility Grade of about 6 or greater.

56. A composition according to Claim 45 having an Average Solubility Grade of about 5 or greater.

57. An essentially dry composition comprising:

a) from about 0.001% to about 25% of aspartame, by weight of the composition, wherein at least about 82% of the aspartame, by weight, comprises particles having a particle size of greater than about 106 microns; and

b) from about 50 to about 96% of a bulking agent, by weight of the composition;

wherein the composition is suitable for use as a food or beverage.

58. A composition according to Claim 57 further comprising at least one nutrient selected from the group consisting of vitamin A, vitamin B, biotin, vitamin C, vitamin D, vitamin E, vitamin K, calcium, phosphorous, magnesium, potassium, iron, iodine, selenium, chromium, copper, fluorine, zinc, and mixtures thereof.

59. A composition according to Claim 58 further comprising a flavor agent.

60. A composition according to Claim 59 comprising from about 50% to about 93% of the total bulking agent, by weight of the composition, wherein the bulking agent comprises sucrose.

61. A composition according to Claim 60 wherein at least one flavor agent is selected from the group consisting of spray-dried flavor agents, agglomerated flavor agents, spray-dried

agglomerated flavor agents, granulated flavor agents, extruded flavor agents, encapsulated flavor agents, and mixtures thereof.

62. A composition according to Claim 61 comprising from about 0.01% to about 10% of the aspartame, by weight of the composition.

63. A composition according to Claim 62 comprising from about 0.1% to about 3% aspartame, by weight of the composition, wherein at least about 87% of the aspartame, by weight, comprises particles having a particle size greater than about 106 microns.

64. A composition according to Claim 63 wherein less than about 10% of the aspartame, by weight, comprises particles having a particle size of less than about 45 microns.

65. A composition according to Claim 64 wherein greater than about 50% of the total flavor agent, by weight, has a particle size greater than about 106 microns.

66. A composition according to Claim 65 wherein less than about 5% of the aspartame, by weight, comprises particles having a particle size less than about 45 microns.

67. A composition according to Claim 66 wherein at least about 92% of the aspartame, by weight, comprises particles having a particle size greater than about 106 microns.

68. A composition according to Claim 67 comprising at least three nutrients selected from the group consisting of vitamin A, riboflavin, niacinamide, vitamin B_6, folate, vitamin B_{12}, vitamin C, vitamin E, calcium, phosphorous, magnesium, potassium, iron, iodine, zinc, and mixtures thereof.

69. A composition according to Claim 68 having an Average Solubility Grade of about 6 or greater.

70. A composition according to Claim 57 having an Average Solubility Grade of about 5 or greater.

71. An essentially dry composition comprising:

a) at least one nutrient selected from the group consisting of magnesium, iron, iodine, zinc, selenium, chromium, copper, fluorine, and mixtures thereof;

b) from about 0.001% to about 25% of aspartame, by weight of the composition, wherein at least about 50% of the aspartame, by weight, comprises particles having a particle size of greater than about 106 microns; and

c) from about 50 to about 96% of a bulking agent, by weight of the composition;

wherein the composition is suitable for use as a food or beverage.

72. A composition according to Claim '71 comprising from about 0.01% to about 10% aspartame, by weight of the composition.

73. A composition according to Claim 72 wherein at least about 75% of the aspartame, by weight, has a particle size greater than about 106 microns.

74. A composition according to Claim 73 comprising from about 18 milligrams to about 150 milligrams of iron, per 100 grams of the composition, and further comprising at least one further nutrient selected from the group consisting of calcium, phosphorous, potassium, vitamin A, vitamin B, biotin, vitamin C, vitamin D, vitamin E, vitamin K, and mixtures thereof.

75. A composition according to Claim 74 further comprising at least one flavor agent selected from the group consisting of spray-dried flavor agents, agglomerated flavor agents, spray-dried agglomerated flavor agents, granulated flavor agents, extruded flavor agents, encapsulated flavor agents, and mixtures thereof.

76. A composition according to Claim 75 wherein the iron is selected from the group consisting of ferrous sulfate, ferrous fumarate, ferrous succinate, ferrous gluconate, ferrous lactate, ferrous tartrate, ferrous citrate, ferrous amino acid chelates, ferrous pyrophsophate, ferric saccharate, ferric ammonium citrate, ferric citrate, ferric sulfate, ferric chloride, ferric pyrophosphate, and mixtures thereof.

77. A composition according to Claim 76 wherein greater than about 50% of the total flavor agent, by weight, has a particle size greater than about 106 microns.

78. A composition according to Claim 77 comprising from about 50% to about 93% of a bulking agent, by weight of the composition.

79. A composition according to Claim 78 wherein at least about 87% of the aspartame, by weight, has a particle size greater than about 106 microns.

80. A composition according to Claim 79 wherein less than about 10% of the aspartame, by weight, comprises particles having a particle size of less than about 45 microns.

81. A composition according to Claim 80 comprising from about 0.1% to about 3% of aspartame, by weight of the composition.

82. A composition according to Claim 81 comprising iodine.

83. A composition according to Claim 81 wherein the iron is a ferrous amino acid chelate.

84. A composition according to Claim 83 having an Average Solubility Grade of about 6 or greater.

85. A composition according to Claim 71 having an Average Solubility Grade of about 5 or greater.

93. A beverage comprising the composition according to Claim 1 selected from the group consisting of:

a) a ready-to-drink beverage comprising, by weight of the beverage, from about 0.01% to about 30% of the composition; and
b) a concentrate comprising, by weight of the beverage, from about 1% to about 80% of the composition.

94. A beverage comprising the composition according to Claim 14 selected from the group consisting of:

a) a ready-to-drink beverage comprising, by weight of the beverage, from about 0.01% to about 30% of the composition; and
b) a concentrate comprising, by weight of the beverage, from about 1% to about 80% of the composition.

95. A beverage comprising the composition according to Claim 30 selected from the group consisting of:

a) a ready-to-drink beverage comprising, by weight of the beverage, from about 0.01% to about 30% of the composition; and
b) a concentrate comprising, by weight of the beverage, from about 1% to about 80% of the composition.

96. A beverage comprising the composition according to Claim 45 selected from the group consisting of:

a) a ready-to-drink beverage comprising, by weight of the beverage, from about 0.01% to about 30% of the composition; and
b) a concentrate comprising, by weight of the beverage, from about 1% to about 80% of the composition.

97. A beverage comprising the composition according to Claim 57 selected from the group consisting of:

a) a ready-to-drink beverage comprising, by weight of the beverage, from about 0.01% to about 30% of the composition; and
b) a concentrate comprising, by weight of the beverage, from about 1% to about 80% of the composition.

98. A beverage comprising the composition according to Claim 71 selected from the group consisting of:

a) a ready-to-drink beverage comprising, by weight of the beverage, from about 0.01% to about 30% of the composition; and
b) a concentrate comprising, by weight of the beverage, from about 1% to about 80% of the composition.

102. An essentially dry composition comprising:

a) from about 0.001% to about 25%, by weight of the composition, of a high intensity sweetener consisting essentially of aspartame, wherein at least about 50% of the aspartame, by weight, has a particle size of greater than about 106 microns; and
b) a bulking agent, wherein the composition comprises less than about 96% of the bulking agent;

wherein the composition is suitable for use as a food or beverage.